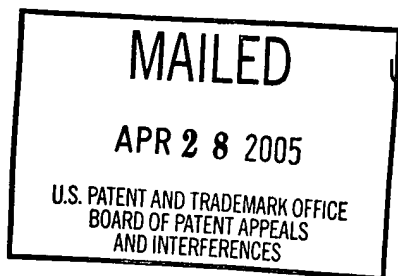


The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES A. SCHINNERER and BYRON A. ALCORN

Appeal No. 2005-0388
Application No. 09/715,600

ON BRIEF

1214.67

Tommy Chin

QAS = Bost, Dwayne

Before BARRETT, RUGGIERO, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-16.

We affirm.

BACKGROUND

The invention relates to manipulation of right channel pixel and left channel pixel (i.e., stereo) graphical data. Representative claim 1 is reproduced below.

1. A method for converting active stereo video data into passive stereo video data, the active stereo video data containing right channel pixel data and left channel pixel data, the active stereo video data being configured to enable alternate output of corresponding frames of the right channel pixel data and the left channel pixel data for displaying an image to be rendered in active stereo, said method comprising the steps of:

receiving the active stereo video data containing the right channel pixel data and the left channel pixel data corresponding to the image to be rendered;

re-sequencing the right channel pixel data and the left channel pixel data;
and

simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data for displaying the image to be rendered in passive stereo.

The examiner relies on the following reference:

Garcia

5,510,832

Apr. 23, 1996

We refer to the Final Rejection (Paper No. 9) and the Examiner's Answer (Paper No. 15) for a statement of the examiner's position and to the Brief (Paper No. 14) and the Reply Brief (Paper No. 16) for appellants' position with respect to the claims which stand rejected.

Claims 1-16 stand rejected under 35 U.S.C. § 102 as being anticipated by Garcia. The Final Rejection also applied the same rejection against claims 17-19. However, appellants are not appealing the rejection of claims 17-19 (and submitted an amendment after final proposing to cancel the claims). Since appellants are not maintaining the appeal with respect to claims 17-19, the rejection as to those claims stands dismissed.

OPINION

Appellants submit that the claims on appeal stand or fall together. Consistent with the rules in effect at the time of filing the Brief, we select claim 1 as representative. See 37 CFR § 1.192(c)(7) (2003).

“Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention.” RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). The first inquiry must be into exactly what the claims define. In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970). The terms used in the claims bear a “heavy presumption” that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art. Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1817 (Fed. Cir. 2002).

Appellants’ main contention is that the terms “active stereo” and “passive stereo” have been expressly defined in the instant specification, thus distinguishing instant claim 1 over Garcia. Appellants refer to page 59 of the specification, which states that the term “active stereo” refers to the presentation of alternating channels, one channel being associated with the left eye of a viewer and the other channel being associated with the right eye of the viewer, “of video display.” The term “passive stereo” refers to the presentation of simultaneous channels, one channel being associated with the left

eye of a viewer and the other channel being associated with the right eye of the viewer,
“of video display.”

A problem with appellants’ position, which informs our ultimate decision, is that claim 1 does not set forth any step of “displaying” anything. The claim contains mere statements of intended use relating to what might be done with the data in later, unclaimed steps; e.g., simultaneously outputting corresponding frames “for displaying” the image “to be rendered” in passive stereo. The terms “active” and “passive” stereo video data also relate, ultimately, to mere intended use, since the recitations as defined in the specification only have substance in terms of how the respective data is presented to a viewer. The receiving, “re-sequencing,” and “simultaneously outputting” steps of claim 1 require no displaying, and require no more than passing data from buffer to buffer.

We note here that the “re-sequencing” recited in claim 1 does not appear to comport with the standard definition of re-sequencing. The transitive verb “sequence” is normally recognized as meaning “[t]o arrange in a sequence.” See Webster’s Ninth New Collegiate Dictionary at 1073 (1990). “Re-sequencing” would thus mean organizing or arranging in a sequence different from the original. Claim 1 thus suggests that right and left channel pixel data may be swapped or interchanged. However, instant claim 4 provides an example of what might be meant by “re-sequencing.” The claim refers to acts described at page 61 of the specification,

whereby received video data is allocated to buffers (Fig. 21) such that a delay may be provided to the received ("active") stereo video data of the composite data stream so that output of right and left channel data may be output simultaneously, for "passive" display (Fig. 24) as opposed to "active" display (Fig. 22). We further note, however, that "simultaneously" may relate to a relative, rather than absolute, sense of the word. Figure 21 shows a representation of output composite data streams suggesting that the "simultaneous" output described at the paragraph bridging pages 64 and 65 of the specification may refer to right and left channel data that is identified as to proper channel, but output sequentially; i.e., time-sharing a single output connection, which is possible since the "simultaneous" output to a display per se becomes necessary only in the final step of the process -- the displaying. In any event, the "re-sequencing" appears to relate to, at least, allocating received data to particular buffers and, at most, allocating received data to particular buffers and adding delays within a sequence of data, rather than a rearrangement or reordering of the sequence.

We have studied appellants' arguments in the briefs in an attempt to ascertain how the language of instant claim 1 might be thought to distinguish over Garcia. If appellants' point is that Garcia describes an "active stereo" display, as opposed to a "passive stereo" display, we agree. In view of the description at, for example, column 8, line 59 through column 9, line 29 of the reference, the method of displaying the stereo data to the viewer is essentially the same as that described in the "typical" (prior

art) "active stereo" presentation described at page 59 of the instant specification.

However, that is not the end of the inquiry, in view of the breadth of instant claim 1. As previously noted, the claim does not require displaying anything.

Garcia is directed to a system for synthesizing a 3D image from a 2D input source. The system uses a "DeepVision" processor 120 (Fig. 2) that comprises image buffers for storage of digitized video frames and circuitry to convert the input digitized video signal into time displaced, image shifted video information. Col. 8, ll. 27-44.

Figure 5 shows an input video stream of sequential video frames F1, F2, F3, and three separate image buffers: storage buffer 450, copy buffer 454, and display buffer 452.

Figure 6 shows a time-line view of the processing applied to the input sequence of video frames. A temporal delay and horizontal spatial shift is created between a first frame to be presented to one eye with respect to a second frame to be presented to the other eye, resulting in presentation as a 3D display. Col. 11, l. 47 et seq.

As shown in Figure 5, two frames (F2 and F1) are written to display buffer 452, with F2 representing a temporal delay of one frame with respect to F1, along with the added horizontal spatial shift -- resulting in a left and a right channel for display. As shown in Figure 6, two frames F1- and F2+ are output simultaneously as F3 is being acquired. Col. 12, ll. 11-33. An explanation of why Figure 6 shows simultaneous output of F1- and F2+ may be found at column 10, line 66 through column 11, line 6, and the description of field/frame multiplex video controller 130 (Fig. 1) at the

paragraph bridging columns 8 and 9. The contents of display buffer 452 (Fig. 1) are not necessarily written directly to monitor 200, but may be output to a multiplex video controller for further processing before sequential display of a left and a right frame. In any event, Figure 6 is clear in showing, consistent with the written description, simultaneous output of left and right frames, at time T5, as frame F3 is being acquired.

Thus, while we may agree with appellants that the right and left channel pixel data are not simultaneously displayed, Garcia does teach that the right and left channel pixel data are simultaneously output. We agree with the examiner that Garcia shows all that instant claim 1 requires.

Appellants seem to add, in the Reply Brief, the argument that Garcia does not teach reception of "active stereo video data," since the original video source in the reference is 2D. Claim 1, however, does not specify what receives the "active" stereo video data. As shown in Figures 5 and 6 of Garcia, the circuitry creates a left and a right (3D) representation of the 2D image that is "received" at least at storage buffer 450 and copy buffer 454.

Garcia thus supports the examiner's finding of anticipation with respect to representative claim 1. We sustain the rejection of claims 1-16 under 35 U.S.C. § 102 as being anticipated by Garcia.

CONCLUSION

The rejection of claims 1-16 under 35 U.S.C. § 102 is affirmed.


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Application No. 09/715,600

No time period for taking any subsequent action in connection with this appeal
may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(a)(1)(iv).

AFFIRMED


LEE E. BARRETT
Administrative Patent Judge


JOSEPH F. RUGGIERO
Administrative Patent Judge


HOWARD B. BLANKENSHIP
Administrative Patent Judge

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Appeal No. 2005-0388
Application No. 09/715,600

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